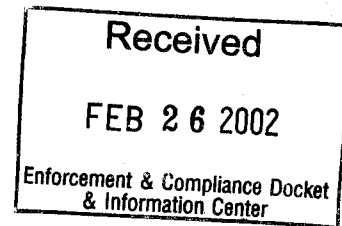


EC-2000-007
IV-D-058

February 26, 2002



U.S. Environmental Protection Agency
Enforcement and Compliance Docket & Information Center (Mail Code 2201A)
ATTN: Docket Number EC-2000-007
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Sir or Madam:

Eastman Chemical Company (Eastman) appreciates the opportunity to comment on the proposed rule "Establishment of Electronic Reporting; Electronic Records," dated August 31, 2001, 66 FR 46162. Eastman is a major global manufacturer of chemicals, plastics, fibers, specialty resins and colorants and specialty products for the inks and coatings markets. As such, we have many U.S. manufacturing facilities subject to EPA's reporting and recordkeeping requirements. As proposed, Eastman finds the recordkeeping requirements of this rule would be mandatory rather than voluntary, and the compliance costs would be prohibitive with no corresponding business value. We strongly oppose the recordkeeping portion of this rule and request that the Agency withdraw such requirements, for the reasons stated below.

A. RECORDKEEPING PORTION OF RULE IS MANDATORY, NOT VOLUNTARY

Eastman believes EPA has severely underestimated the nature and scope of the recordkeeping portion of this rule, given its discussion in the preamble of criteria that facilities must adhere to if they maintain electronic records in lieu of paper records, and given the proposed definition of an electronic record. First, EPA states:

Electronic record means any combination of text, graphics, data, audio, pictorial, or other information represented in digital form that is created, modified, maintained, archived, retrieved or distributed by a computer system. (66 FR 46189)

Further, EPA states:

Regulated entities that use electronic systems to create, modify, maintain, or transmit electronic records will need to employ procedures and controls designed to meet the minimum criteria in today's rule. (66 FR 46169)

... today's proposal requires the adoption of best practices for electronic records management. (66 FR 46164)

Virtually all our facilities currently use electronic systems to create, modify, maintain and sometimes even transmit to the regulating agency electronic records, based on the broad scope of Eastman Chemical Company Comments

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electronic records as defined. This would then subject all our facilities to EPA's proposed criteria for electronic record-retention systems. Those nine criteria are listed in proposed Subpart C, Section 3.100 (66 FR 46190), and there is simply no instance where any electronic record currently generated by an Eastman facility would satisfy all those criteria.

Thus, for Eastman facilities, the recordkeeping part of this rule is not voluntary, but rather mandatory. We suspect the same is true for virtually all EPA-regulated facilities. What manufacturing facility would not have computers that generate *some* record that is either used to support or to generate some reporting requirement or to document that the facility need not report to the Agency? EPA has totally misrepresented the application of the recordkeeping portions of this rule to the regulated community. Given that misrepresentation, we urge the Agency to withdraw the recordkeeping provisions of the proposed rule.

B. EASTMAN WOULD INCUR SIGNIFICANT, UNREASONABLE COSTS OF COMPLIANCE WITH THE RECORDKEEPING PORTION OF THE PROPOSAL

Eastman is unable to develop a documented, accurate cost estimate of its potential compliance costs with the recordkeeping portion of this proposal, given the amount of time and staff that would be required to do so. However, there are a large number of systems critical to the operation and compliance activities at each site that could potentially be impacted. Eastman would need to review continuous emissions monitors, ambient air monitors, waste management databases, computerized logs in process control rooms, various control systems, division-specific manufacturing information systems, our Enterprise Resource Planning (ERP) system and its environmental modules and other modules from which data are extracted for purposes of environmental reporting, laboratory instrumentation equipment, influent and effluent monitoring systems, electronic inspection records, electronic training records, specialized software developed for site-specific or process-specific needs, the use of common industry-wide software like Excel and Word for aiding calculations and reporting, and other systems and softwares used to generate, track and calculate data to maintain compliance with various EPA statutes, including the Clean Air Act, RCRA, Clean Water Act, FIFRA, TSCA and EPCRA/TRI.

Eastman would have to analyze if such systems *could* be brought into compliance, how that could be done, the cost of doing so, or the cost for finding or developing new systems, all of which would require major resources. Eastman's information technology

staff indicates it would be very difficult and costly, and impossible in some instances, to do the interfaces that would be required under this rule. There are also real concerns about how quickly our software vendors could (or would) respond to the EPA requirements. The ERP system we use, for instance, is the product of a German company with many European users, and it is uncertain how and under what timetable they would respond to changes required by U.S. regulations.

Eastman estimates the costs for our company would be in the millions of dollars, given the very Eastman Chemical Company Comments
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large number of off-the-shelf software, in-house developed software and contractor-developed software that this company uses in its everyday monitoring, compliance, reporting and recordkeeping activities. We don't believe that any of these products can meet the nine criteria EPA lays out in the proposal. Of particular concern is the criterion for "secure, computer-generated, time-stamped audit trails." Compliance with these regulations as proposed would require an effort not dissimilar to what was required for Y2K, and could be worse.

C. EPA HAS SIGNIFICANTLY UNDERESTIMATED THE COST IMPACTS OF THIS RULE

EPA estimates that:

The average annual cost to implement a new electronic record keeping system is \$40,000 for each facility, and the net average annual cost savings for operating the electronic record keeping system is \$23,080. . . our estimates indicate that implementation of electronic reporting will result in a net burden reduction for all participants, but facilities may not find it cost-effective to develop an electronic records system unless it addresses both EPA and non-EPA business purposes. (66 FR 46178)

Eastman strongly disagrees with EPA's average annual costs of compliance, believes it would actually be much higher, but agrees that many facilities would not find it cost-effective to develop an electronic records system as proposed by EPA, had they none in place already, and if that choice existed. As stated earlier, we believe the recordkeeping portion of the rule is not voluntary as written, but mandatory. Electronic recordkeeping is already a part of Eastman's culture, as it is for most companies in today's world. Do we have any strictly paper-based recordkeeping systems in use also? That's possible but highly doubtful, because most paper-based records have involved the use of one or more electronic documents to generate the data needed for the paper record. Eastman foresees no significant benefits resulting from EPA's electronic recordkeeping proposal. Rather, because none of our current electronic systems can meet EPA's stringent criteria, and the cost of replacement or the cost of remediation, as applicable, would be in the millions of dollars for this company, we would only incur new costs without adding significant business value.

Given the mandatory aspect of the recordkeeping provisions, it is possible to estimate a "low range" of potential costs of compliance using EPA's own \$40,000/facility estimate. EPA estimates that 1.2 million facilities file reports under EPA-administered laws. Recordkeeping at the facility level would almost certainly accompany such reporting, so if one assumes that a minimum of 1.2 million facilities would incur costs of an average \$40,000/facility, the total costs for implementing EPA's recordkeeping provisions would be \$48 billion! We believe that to be an absolute "bottom" end of a potential range of estimates. Many other facilities conduct recordkeeping, if for no other purpose than to document why they don't meet an environmental reporting requirement. Thus, Eastman would expect a greater number of facilities to be affected at a greater average cost per facility.

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Many of the affected facilities would be small, yet EPA states that today's rule is not subject to the Regulatory Flexibility Act (RFA) because "*this rule will not have a significant economic impact on a substantial number of small facilities.*" (66 FR 46186) EPA also states that "*... this rule is a 'significant regulatory action' because it raises novel legal and/or policy issues.*" (66 FR 46185) Eastman believes EPA is required to conduct an RFA because of the impacts imposed on a very large number of small facilities, and we believe this is a significant regulatory action for the additional reason of compliance costs.

D. ELECTRONIC RECORDKEEPING/REPORTING IS ALREADY IN PLACE AND REQUIRES NO ADDITIONAL REGULATION

It appears EPA has no understanding of the extensive use in today's world of electronic reporting and recordkeeping. We have great concern that EPA may not appreciate the complexities of records management in this day and age. Businesses are spending millions of dollars on sophisticated data warehousing and other integrated computer technologies that focus on supporting document management and record retrieval capabilities. We are concerned with the following comments from the preamble:

Any regulated company or other entity that maintains records addressed by today's proposal . . . under EPA regulations can store them in an electronic form subject to the proposed criteria for electronic recordkeeping as soon as EPA announces that the specified records may be kept electronically. (66 FR 46167) EPA further states:

Records subject to this rule maintained under an authorized State or tribal program can only be maintained electronically once EPA has approved the necessary changes to the authorized program. (66 FR 46168)

We all store records electronically now; in fact, it is the most common method of recordkeeping. The inspectors/regulators our facilities deal with on a regular basis accept such records routinely. Records are retrieved electronically for viewing by regulators/inspectors; they are printed out when requested; and this is broadly accepted. Eastman is unaware of any obstacles to electronic recordkeeping at the current time; it simply has not been an issue for the regulators with whom we work. None of our facilities is currently maintaining "only" paper-based systems in support of EPA regulatory programs. In fact, it would take a significant-sized warehouse to store a year's worth of paper copies of records that are now being generated and stored electronically! Thus, given the status quo, Eastman sees no reason why EPA even needs regulations for electronic records.

EPA should also be aware of its own regulations that already require electronic reporting. One example is under the Continuous Emission Monitoring requirements at 40 CFR Part 75. Quarterly electronic reporting is required under these standards. To quote:

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§75.73(f) Quarterly reports.—(1) Electronic submission. The designated representative for an affected unit shall electronically report the data and information in this paragraph (f)(1) and in paragraphs (f)(2) and (3) of this section to the Administrator quarterly . . . Each electronic report shall include the date of report generation, for the information provided in paragraphs (f)(1)(ii) through (1)(vi) of this section, and shall also include for each affected unit or group of units monitored at a common stack:

(i) Facility information:

(A) Identification, including:

(1) Facility/ORISPL number;

(2) Calendar quarter and year data contained in the report; and

(3) Electronic data reporting format version used for the report . . .

§75.73(f)(3) Compliance certification. The designated representative shall submit and sign a compliance certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(i) The monitoring data submitted were recorded in accordance with the applicable . . .

Just this one example demonstrates that EPA not only allows, but requires today, electronic reporting, and this is done without elaborate audit trails or even an electronic signature. Rather, EPA reasonably allows a designated representative to sign a compliance certification based on "reasonable inquiry of those persons with primary responsibility . . ."

ability and authority for this electronic reporting requirement, without the elaborate

criteria proposed in this rulemaking.

A driver for this proposal is the requirement under the Government Paperwork Elimination Act (GPEA) of 1998 that agencies be prepared to allow electronic reporting and recordkeeping under their regulatory programs by October 21, 2003. Yet, the GPEA says very little about recordkeeping, simply that:

[A]gencies [shall] provide. . . for the option of the electronic maintenance, submission, or disclosure of information, when practicable as a substitute for paper; (§1704(1)) and

Electronic records submitted or maintained in accordance with procedures developed under this title, or electronic signatures or other forms of electronic authentication used in accordance with such procedures, shall not be denied legal effect, validity, or enforceability because such records are in electronic form. (§1707)

It is Eastman's opinion that EPA has gone far beyond the GPEA requirements in this proposal and that the agency can only require security equivalent to that present with paper records. Thus, no additional requirements are necessary.

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**E. EPA'S PROPOSED CRITERIA FOR ELECTRONICALLY
MAINTAINING RECORDS ARE MUCH TOO STRINGENT**

EPA proposes nine criteria that regulated entities must meet for their electronic record-retention systems. The nine criteria and comments related to each are:

- 1) Generate and maintain accurate and complete copies of records and documents in a form that does not allow alteration of the record without detection.

This criterion is neither being met today with paper documents nor with electronic documents. Paper copies could be altered in numerous ways; certainly one cannot say it's impossible to alter a paper record without detection. Many records are now being retained electronically, and while some are "read only" except for authorized persons, one again cannot say it's impossible to alter an electronic document without detection. There are a number of deterrents to altering such documents, however, ranging from a sense of right and wrong to a sense of liability to oneself and to the company in the form of losing one's job and inspection/enforcement actions. EPA has provided no evidence of an existing problem under the status quo for either paper or electronic records. Therefore, Eastman sees no need for the agency to apply this criterion to electronic records submitted in the future.

- 2) Ensure that records are not altered throughout the records' retention period.

This seems to just be a slight twist on the first criterion. First, one must generate and maintain documents in such a way that alterations cannot be done without detection. Second, one must ensure these same records are not altered for whatever timeframe is required for retention of the record. This is an onerous requirement for some data, e.g., that data required to be retained for the life of the facility. Does the quality of this data have the potential to be degraded over a 40-50 year period or longer? No one yet has experience trying to retain electronic records for such very long periods of time. Certainly, one could assume that the older the data become, the less valuable they are to the facility or to EPA, and the greater the likelihood of degradation. Eastman also believes that the migration of electronic data from one system to another as new technologies develop could result in the loss of some data or potentially in unknown changes due to unforeseen migration problems.

- 3) Produce accurate and complete copies of an electronic record and render these copies readily available, in both human readable and electronic form as required by predicate regulations, throughout the entire retention period.

Electronic records are currently being made readily available for viewing electronically and are printed out when desired. Retrieving such data from old legacy systems may be a problem over long periods of time. If data must be retained and accessible for the life of the facility, extraordinary amounts of money would have to be spent either on retaining Eastman Chemical Company

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staff familiar with and willing to maintain legacy systems (likely not possible for the life of the facility) or in moving literally millions and millions of pieces of data from old to new systems, without any degradation whatsoever (likely impossible), and without adding any real value to the company. The older the data, the less valuable it is to the generator, to the regulator or to the public. Hence, either statutory law requiring records to be kept for the life of the facility need amended, or EPA needs to establish some kind of reasonable cap for archiving. Retaining emissions monitoring data via a paper system simply isn't possible today. For incinerators, as an example, EPA requires monitoring data at 75 points at one of our facilities, some of which are taken every 15 seconds. EPA can never manage a lifetime of such data, and no one would have the warehouses needed over time to store paper copies of the data. Yet it would be overly burdensome to keep moving such immense amounts of very old data from one legacy system to a new generation system. Given the rapid advance of technology, this could be required every few years at tremendous cost. Retention time needs to be shortened under existing regulations or an archiving cap set for some reasonable period of time, such as 3 to 10 years.

- 4) Ensure that any record bearing an electronic signature contains the name of the signatory, the data and time of signature, and any information that explains the

meaning affixed to the signature.

This appears to be a reasonable requirement.

- 5) Protect electronic signatures so that any signature that has been affixed to a record cannot be detached, copied, or otherwise compromised.

Eastman doubts that this criterion can be met or even needs to be met. This could be especially challenging for very old data with electronic signature attached that has been stored for a long period of time or that is required to be moved from an old legacy system to a new system.

- 6) Use secure, computer-generated, time-stamped audit trails to automatically record the date and time of operator entries and actions that create, modify, or delete electronic records.

This is a very problematic requirement, given the myriad of software/systems in use at manufacturing facilities today that do not have this capability. Literally millions of dollars have been invested in such systems, they cannot simply be replaced, yet it would cost millions more to remediate them to meet this condition, and it may not be possible to interface all such systems with an auditing feature as proposed. Eastman believes this is an unnecessary and costly requirement that simply can't be met.

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This criterion is significantly more stringent than any requirement associated with a paper system. EPA has not been involved in the creation or modification or deletion of electronic records up to the current time that are used extensively to support some paper document that is then submitted to the Agency. As an example, we have a number of staff throughout our facilities that use Excel spreadsheets to calculate toxic release inventory (TRI) threshold and/or release information. These worksheets/spreadsheets or their hard copies serve as documentation for the TRI data submitted to the Agency. Such documentation has to be retained for a three-year period. As described and defined in the proposal, the spreadsheets themselves are an electronic record, regardless of whether hard copies are available, and such records must include these "secure, computer-generated, time-stamped audit trails." This is simply ridiculous. EPA today has no idea of the number of iterations a spreadsheet goes through before being considered "final" for purposes of determining whether a chemical must or must not be reported under the TRI. Being able to document what is reported is what should be important to EPA—not the revised numbers or calculations that were part of the determination process as data were being collected and added to

the spreadsheet. To our knowledge, Excel doesn't have the capability of tracking changes, and we honestly cannot see the need for such tracking. The final electronic spreadsheet or the final hard copy is available to the inspector in demonstrating how the calculation was made. EPA would have trouble finding an inspector/enforcement person that doesn't accept such documentation today.

Eastman believes the level of stringency imposed by this criterion is totally unacceptable. It would cost industry as a whole billions of dollars to comply, would cost Eastman millions of dollars to comply, and would negate huge investments in current electronic systems.

- 7) Ensure that records are searchable and retrievable for reference and secondary uses, including inspections, audits, legal proceedings, third party disclosures, as required by predicate regulations, throughout the entire retention period.

EPA is surely aware that some of its regulations require enormous amounts of data to be kept for the life of the facility. This is particularly applicable to air emissions monitoring data. For this criterion to be met, EPA likely needs to change its regulations applicable to retention time, such that all are in the three- to ten-year timeframe. But as mentioned earlier, technology advances preclude always maintaining old legacy systems, and the resources required to transfer all old data, increasing in volume as the years go by, to new systems would be significant. Eastman has been in business over 75 years, and hopefully will continue to be a viable enterprise many years into the future. In today's competitive, global economy, should companies be forced to spend limited resources on the retention of decades-old data that adds no business value but also has no value to the Agency, or limited value at best under unique circumstances? This criterion would add significantly to the cost of compliance with the recordkeeping provisions of this rule.

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- 8) Archive electronic records in an electronic form that preserves the context, metadata, and audit trail.

Given the number of times over the decades that electronic records required to be retained for the life of the facility would have to be moved from an old legacy system to a new one, this requirement is impracticable and likely unattainable.

- 9) Make computer systems (including hardware and software), controls, and attendant documentation readily available for agency inspection.

Eastman opposes this criterion. EPA has the authority to require a regulated

facility to produce a record in a useable form, with proper authentication, either at an inspection or in response to a request in a legal proceeding. It is up to the regulated facility to meet that performance standard with whatever combination of paper and electronic records that it has. If the record is not produced, EPA can cite the facility for a violation. But the hardware or software systems a company uses are not themselves a subject of EPA oversight.

It is Eastman's opinion that these criteria are much too stringent and too expensive to impose on the regulated community. Such level of stringency is not in place today and there is no demonstrated need to require this level of stringency in the future, simply because the document is produced or retained electronically, rather than on paper. Personnel at our facilities have established relationships with personnel at their regulating agencies, and such relationships result in a level of communication and trust, such that this level of oversight and security is simply not needed. In addition, as discussed previously, all types of electronic documents are currently being used for recordkeeping, are accepted during inspections and some reports are even being submitted to the Agency electronically, because that is already required. What is important as electronic reporting increases over time is that data submitted to the Agency or to the States be received and entered into their databases without corruption or error. EPA addresses this issue in the reporting section of the proposal.

F. EPA MUST WITHDRAW RECORDKEEPING PORTION OF RULE AND REPROPOSE IF ANY SIGNIFICANT NEW REQUIREMENTS ARE BELIEVED NECESSARY

EPA states in this proposal that the recordkeeping requirements will be voluntary, thus affecting only an estimated 428 facilities that would likely choose to implement the electronic records provisions. As discussed previously, the proposal as written is mandatory rather than voluntary, and a very large number of facilities will be impacted, including small facilities. Thus, EPA is incorrect in its statement that "Today's rule is not subject to the RFA [Regulatory Flexibility

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Act]" and "... this rule will not have a significant economic impact on a substantial number of small entities." (66 FR 46186) Eastman anticipates compliance costs for its own facilities in the millions of dollars, for remediation and replacement of many existing systems/software. We also anticipate some situations where compliance is simply not possible.

Because of the mandatory nature of the rule, the significant error in estimating compliance costs and resultant impacts, and the failure to complete required analyses, Eastman believes the agency has no choice but to withdraw at least the recordkeeping

portion of this proposal. Before any reproposal, we urge the Agency to develop a greater understanding of current recordkeeping practices and to work with the regulated community and other stakeholders in determining if any new requirements are actually necessary in protecting electronic records versus paper records. As stated earlier in these comments, Eastman believes no additional regulations are needed or required.

Please contact me at ndotson@eastman.com or 423-229-4120, if there are any questions regarding these comments.

Sincerely,

Nancy J. Dotson, Principal Environmental Representative
Eastman Chemical Company (B-54D)
P.O. Box 511
Kingsport, TN 37662-5054



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Subject: CROMERRR Comments; Docket Number EC-2000-007

02/26/02 03:26 PM

Attached please find Eastman Chemical Company's comments on the August 31, 2001 proposed rule commonly referred to as CROMERRR. This file is attached in two different formats: (1) the first icon below represents a Word file saved in a rich text format (.rtf) which we believe should open for the Agency and (2) a WordPerfect 5.1 secondary file format, which is the closest WordPerfect format available to us from those named within the preamble as acceptable to the Agency. It's unclear whether this latter format will be sufficient. If neither of these files opens such that a hard copy cannot be produced, please let me know at the phone number or e-mail address shown below. Thank you.

<<Eastman Chemical Company Comments CROMERRR.rtf>>
Chemical
Company Comments CROMERRR2.doc>>
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